

CHAPTER 24

LPU-28/P AND LSC (P/N 482) LIFE PRESERVER ASSEMBLIES

Section 24-1. Description

24-1. GENERAL.

CAUTION

NOTE

The Lifesaving Systems Corporation part number 482 (LSC P/N 482) Life Preserver is a modified LPU-28/P life preserver. Unless otherwise indicated all references to and maintenance requirements of the LPU-28/P apply to the LSC P/N 482 Life Preserver.

24-2. Both assemblies are authorized for use by helicopter rescue aircrewman during search and rescue operations. They are designed to be compatible with helicopter aircrewman helmets. They provide storage and pile tape attachment points for the SDU-5E distress light and AN/PRC-125 radio. [Table 24-1](#) and [figure 24-1](#) apply to the LPU-28/P. Parts for the LSC P/N 482 must be ordered open purchase from LSC until Navy part numbers and NIINs can be established. (See [table 24-1](#), [note 2](#).)

24-3. CONFIGURATION.

24-4. The life preservers weigh a maximum of 2.5 pounds (without accessories) and provide a minimum of 30 pounds of buoyancy. Both assemblies consist of a single compartment flotation assembly, a casing assembly, a waist belt, and a carbon dioxide inflation assembly. The LPU-28/P incorporates a divers mouth-piece type oral inflation valve, and a pressure relief valve. The LSC P/N 482 has a standard oral inflation tube with a knurled ring locking mechanism, and does not incorporate a pressure relief valve. [Figure 24-1](#) applies to the LPU-28/P, however the LSC P/N 482 is similar in appearance.

Only Polyurethane adhesives and Polyurethane film patches shall be used on Polyurethane film LPU-28/P life preserver assemblies.

24-5. The flotation assembly is constructed of heat sealed polyurethane film. It is contained by the cover assembly and attached to the oral inflation assembly, pressure relief valve, and carbon dioxide inflator by threaded access fittings and a valve stem which pass through the cover assembly. The casing assembly has an adjustable waist belt and optional back strap attached.

24-6. The carbon dioxide inflator consists of a carbon dioxide cartridge (28-31 grams, type II) and an inflation valve (3063). The carbon dioxide inflator is mounted on the valve stem, which passes through the casing assembly and seals to the flotation assembly. A check valve is installed in the valve stem to prevent leakage. The cord connecting the actuating knob and carbon dioxide inflator passes through a channel on the casing assembly to provide an all directional pull.

24-7. APPLICATION.

24-8. This assembly is authorized for use by helicopter rescue aircrewmen on all search and rescue operations.

24-9. FUNCTION.

24-10. The life preserver is manually inflated by pulling the actuator knob down. In an emergency situation, the oral inflation valve may be used to top-off an inflated preserver, maintain inflation of a leaky

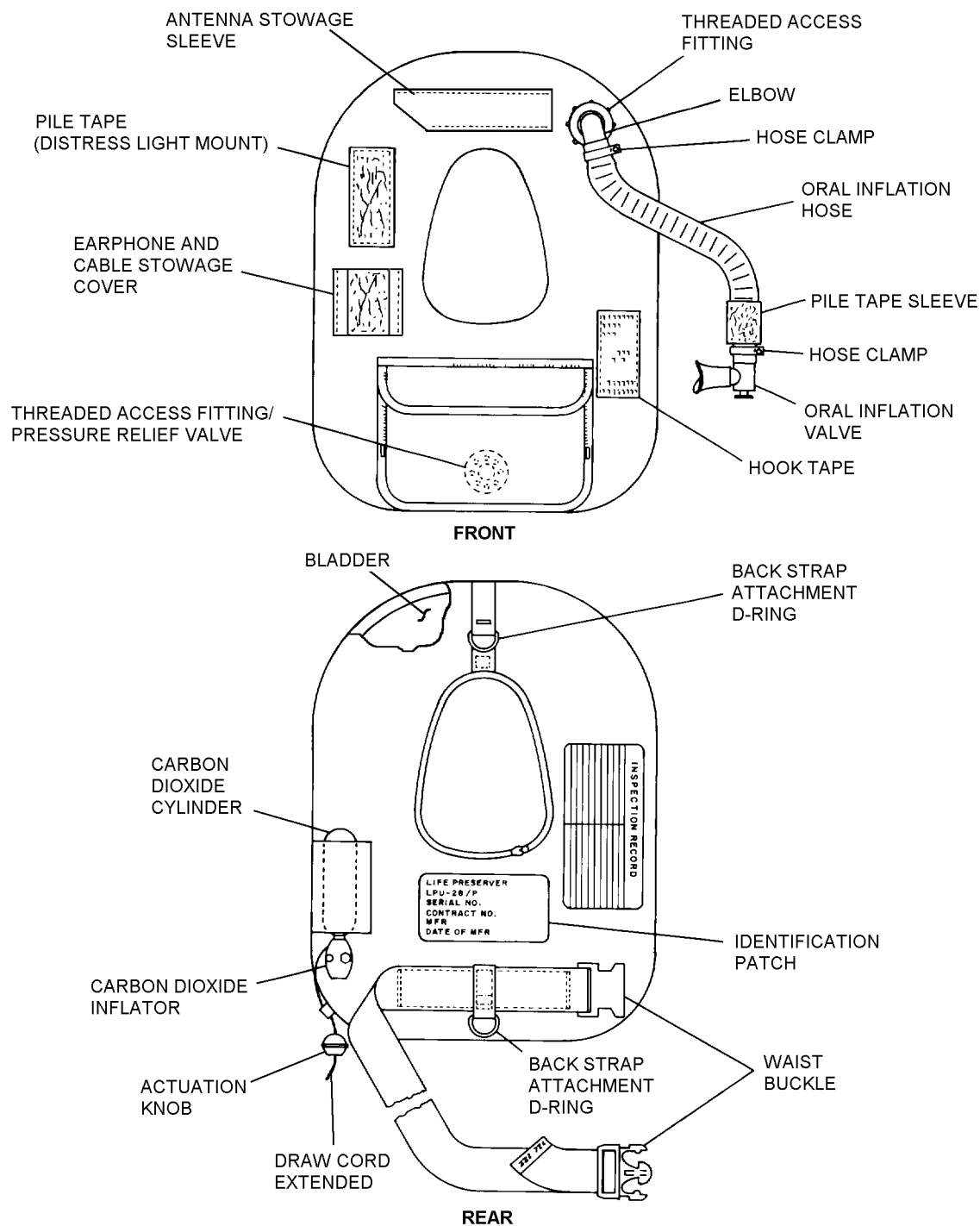


Figure 24-1. LPU-28/P Life Preserver Assembly, Parts Nomenclature

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Table 24-1. LPU-28/P Life Preserver Components

Description	Quantity Required	Reference Number	NIIN	SM&R Code
Inflatable Life Preserver (LPU-28/P)	1	1577AS101-1 (CAGE 30003)	01-199-4974	PAOGG
Casing Assembly	1	TBD	TBD	TBD
Flotation Assembly Bladder	1	8581 (CAGE 58293)	01-225-9757	PAOGG
Carbon Dioxide Inflation Assembly	1	3063 (CAGE 58293)	01-218-6737	PAOZZ
Inflator Stem Bottom Gasket (Note 1)	1	105AS100-4 (CAGE 30003)	—	PAOZZ
Inflator Stem Top Gasket (Note 1)	1	105AS100-3 (CAGE 30003)	—	PAOZZ
Inflator Stem Cap Nut	1	3037 (CAGE 58293)	01-218-1055	PAOZZ
Actuation Knob	1	3031 (CAGE 58293)	01-218-1143	PAOZZ
Buckle, Waist Strap	1	1224 (CAGE 58293)	01-097-8651	PAOZZ
Pressure Relief Valve Cap	1	3041 (CAGE 58293)	01-219-2152	PAOZZ
Pressure Relief Valve Spring	1	1213 (CAGE 58293)	01-219-2409	PAOZZ
Pressure Plate	1	3043 (CAGE 58293)	01-097-8416	PAOZZ
Pressure Seal	1	3100 (CAGE 58293)	01-098-7457	PAOZZ
Threaded Access Fitting, External	2	3000 (CAGE 58293)	01-097-8652	PAOZZ
Threaded Access Fitting, Internal	2	3001 (CAGE 58293)	01-145-6713	PAOZZ
Oral Inflation Elbow	1	3022 (CAGE 58293)	01-098-1780	PAOZZ
Elbow Gasket	1	3021 (CAGE 58293)	01-097-9967	PAOZZ
Elbow Ring, Retaining	1	3023 (CAGE 58293)	01-219-2585	PAOZZ
Oral Inflation Hose	1	1202 (CAGE 58293)	—	PAOZZ
Hose Clamp	1	1251 (CAGE 58293)	01-222-7822	PAOZZ
Oral Inflation Hose Sleeve (Pile Tape)	1	1219 (CAGE 58293)	—	PAOGG

Table 24-1. LPU-28/P Life Preserver Components (Cont)

Description	Quantity Required	Reference Number	NIIN	SM&R Code
Oral Inflation Valve	1	3010 (CAGE 58293)	01-244-4270	PAOZZ
Back Strap	1	8582 (CAGE 58293)	—	PAOGG
Carbon Dioxide Cylinder (Type II)	1	MIL-C-25369 (CAGE 81349)	00-543-6693	PAOZZ
Seat Seal	1	849AML	01-291-3593	PAOZZ
Check Valve Assembly	1	67A319D18-1 (CAGE 30003)	01-081-0322	PAOZZ
Notes: 1. Top and bottom gaskets are obtained from Valve Stem Kit, P/N 105AS100-6, NIIN 00-113-8290, which contains one top and one bottom gasket. 2. Until Navy part numbers and NIINs can be established for the LSC P/N 482, all parts must be ordered open purchase from: Lifesaving Systems Corp. 220 Elsberry Road Apollo Beach, FL 33572-2289 (813) 645-2748 (CAGE 64249).				

preserver, or inflate a preserver when the inflator assembly fails. The oral inflation valve may be used to inflate or deflate the preserver during an inspection test. To operate the oral inflation valve, depress the button to inflate, then release button to keep air from exiting the inflation assembly.

24-11. DONNING PROCEDURE.

24-12. To don the life preserver, proceed as follows:

1. Place unit over head.

2. Snap waist belt buckle and adjust belt by gripping the belt's free end and pulling to a comfortable fit. Do not tighten the waist belt to the extent that it will restrict breathing or movement.

Section 24-2. Modifications

24-13. GENERAL.

24-14. The LPU-28/P Series Life Preserver Assembly shall be upgraded by comparing the configuration of

the assembly with modifications listed in [table 24-2](#). Common repairs and fabrication instructions to maintain serviceability are listed in [table 24-3](#).

Table 24-2. LPU-28/P Directives

Description of Modification	Application	Modification Code
Fabrication of AN/PRC-125 Radio Stowage Assembly	All LPU-28/P Life Preservers	626
Notes: 1. There are no current directives for the LSC P/N 482 life preserver.		

Table 24-3. LPU-28/P Life Preserver Common Repairs and Fabrications

Description of Repair or Fabrication	Paragraph Number
Determination of Repairability	24-49
Casing Repair Procedures	24-51
Cementing Life Preserver	24-52
Patching Life Preserver	24-53
Recementing of Bladder Fin Seam	24-55
Replacement of Lanyard Cord	24-56
Repair of Corroded CO ₂ Inflation Valve	24-57
Replacement of Top and Bottom Gaskets	24-58
Replacement of Check Valve Assembly	24-59
Disassembly of Life Preserver	24-60
Reassembly of Life Preserver	24-61
Replacement of Components for Elbow-Oral Inflating Hose	24-62
Replacement of Pressure Relief Valve	24-63
Fabrication of AN/PRC-125 Radio Stowage Assembly	24-64

Section 24-3. Maintenance

24-15. GENERAL.

24-16. This section contains information on inspection, disassembly, repair/replacement, testing, reassembly, and cleaning of the LPU-28/P Life Preserver.

24-17. INSPECTION.

24-18. All life preservers shall be subjected to Preflight, Special and Calendar/Phase Inspections.

24-19. The Preflight Inspection shall be performed on life preservers prior to each flight by the aircrewmember to whom the life preserver is assigned. The Preflight Inspection shall be performed on life preservers installed in aircraft prior to each flight by assigned aircrewmembers.

24-20. The Special Inspection shall be performed on all aircraft installed life preservers at intervals not to exceed 30 days. The inspection shall be performed at the organizational level of maintenance by personnel assigned to the Aviator's Equipment Branch.

24-21. Upon completion of the inspection, make necessary entries on appropriate form in accordance with OPNAVINST 4790.2 Series. The 30-Day Special Inspection may be recorded on a separate history card from the history card recording Calendar/Phase Inspections, functional checks, and modifications.

24-22. The Calendar/Phase Inspection shall be performed on all life preservers prior to placing in service. The Inspection cycle thereafter shall be as follows: personal issue life preservers shall be inspected once every 90 days. Aircraft-installed life preserver inspection shall coincide with the inspection cycle of the aircraft in which installed. See applicable Planned Maintenance System (PMS) publications for specific intervals. In no case shall the interval exceed 231 days. Unless operational requirements demand otherwise, the life preserver Calendar/Phase Inspection shall be performed by the intermediate level of maintenance or above. The functional test shall be performed prior to placing in service, every fourth inspection cycle thereafter, and whenever an inflation assembly is replaced. The leakage test shall be performed during every inspection cycle. If inspection indicates damage, complete appro-

appropriate forms in accordance with OPNAVINST 4790.2 Series and forward entire assembly to supply. Refer to [paragraph 24-49](#) for determination of repairability.

24-23. QUALITY ASSURANCE. Properly detailed procedures present a logical sequence for the inspection process. The more critical procedures are underlined to designate steps which require a Quality Assurance inspection to assure performance of specific requirements. After the underlined step is performed by the Aircrew Survival Equipmentman, the procedure shall be verified before the next step is performed. This verification shall be performed by a Collateral Duty Inspector or Quality Assurance Representative (CDI, CDQAR, or QAR). Work Center supervisors are primarily responsible for quality assurance within their centers. OPNAVINST 4790.2 Series permits supervisors to nominate their more experienced personnel to serve as quality assurance inspectors. Nominated personnel shall be screened and examined by the Quality Assurance Officer prior to their designation as Quality Assurance Inspectors or Quality Assurance Representatives by the Commanding Officer. Under no circumstances shall an Aircrew Survival Equipmentman perform his own quality assurance inspection.

24-24. PREFLIGHT/SPECIAL INSPECTION. To perform a Preflight/Special Inspection, proceed as follows:

WARNING

Ensure that inflation actuating knob is readily accessible. The knob shall extend from the protective cover flap.

CAUTION

Do not open any sealed or safety-wired/safety tied portions of preserver for Preflight/Special Inspection.

1. Inspect exposed metal parts for corrosion and damage.
2. Inspect inflation assembly for presence of safety wire and CO₂ cylinder.
3. Inspect seams and harness for wear, snags, tears and abrasions.
4. Inspect for presence of survival items, security of attachment and, if applicable, operation.

5. Inspect casing fabric for cuts, tears, abrasions, security of stitching, and other damage.

6. Check identification and record patches for secure attachment to life preserver fabric.

7. Inspect hook and pile tape for secure attachment.

8. Adjust and don preserver to ensure proper fit.

9. If any discrepancy is noted, the preserver shall be removed from service and repaired in accordance with procedures in this chapter.

24-25. ACCEPTANCE/CALENDAR/PHASE INSPECTION. The Acceptance/Calendar/Phase Inspection consists of the following tasks:

1. Inflation Handle Inspection
2. Casing Inspection
3. Functional Test (every fourth inspection cycle)
4. Visual Inspection
5. Life Preserver Configuration
6. General Inspection
7. Markings Inspection
8. Inflation Assembly Inspection
9. Inflation Lanyard Inspection
10. Leakage Test
11. Records Updating

24-26. INFLATION HANDLE INSPECTION. Inspect inflation actuation handle for the following:

1. Attachment of inflation lanyard to handle.
2. Corrosion on fasteners and ease of operation.
3. Cuts, tears, deterioration, abrasion, stains, and general cleanliness of lanyard.
4. Presence of safety tie on inflation handle.

24-27. CASING INSPECTION. To inspect casing, proceed as follows:

1. Inspect fabric for cuts, tears, deterioration, abrasion, stains, and general cleanliness.
2. Inspect seams for proper stitching.
3. Inspect straps and loops for security and wear.
4. Inspect any other parts for wear, damage, and security.
5. All hardware for security of attachment, corrosion, damage, wear and, if applicable, ease of operation.
6. Inspect fastener assemblies for presence, security of attachment, proper orientation, ease of operation, corrosion, and wear.
7. If any discrepancies are found, the casing shall be repaired or removed from service as deemed appropriate by the inspection activity.

24-28. FUNCTIONAL TEST. To perform a functional test, proceed as follows:



Ensure area surrounding preserver is free of foreign objects.

1. Completely open preserver and unfold prior to conducting functional test.
2. Actuate inflation assembly.
3. The preserver shall fully inflate to design shape, without evidence of restriction, in less than 30 seconds.
4. If preserver does not properly inflate, determine cause. Ensure stem and valve are clean and free of foreign matter.
5. If correction is made, the preserver shall be functionally tested again.
6. Deflate preserver in accordance with [paragraph 24-29](#) to remove all CO₂.

24-29. DEFLATION. To deflate a life preserver, proceed as follows:

Support Equipment Required

Quantity	Description	Reference Number
1	Pump, Rotary Vacuum (or equivalent)	NIIN 00-052-5015 (90567)
As Required	Hose, 3/8- or 1/2-inch Inside Diameter, Rubber	—

1. Attach one end of rubber hose to vacuum pump.
2. Deflate through oral inflation valve. Hold in open position, and hold vacuum pump hose in hand against end of oral inflation valve and press valve button. When compartment is collapsed, release button on oral inflation valve. Screw lock closed.

24-30. VISUAL INSPECTION. Prior to visually inspecting a life preserver assembly, the life preserver shall be inflated with air to 1.0 psig.



Remove carbon dioxide cylinder prior to inflating life preserver with air.

NOTE

If suitable air source is not available, water-pumped nitrogen (FED SPEC BB-N-411) may be substituted.

24-31. LIFE PRESERVER CONFIGURATION. The life preserver shall be updated by comparing it to the illustrations and tables in this chapter. The LSC P/N 482 does not have a pressure relief valve. The oral inflation valve is a standard oral inflation tube with a knurled ring locking mechanism. The inflation assembly toggle has four beads and is secured to the casing with a single snap.

24-32. GENERAL INSPECTION. Examine life preservers for the following:

1. Casing fabric for cuts, tears, punctures, deterioration and abrasion. Refer to [paragraph 24-51](#) for repair instructions.

2. Search for proper adhesion. Refer to paragraph 24-55 for repair instructions.

3. Valve inlet stems for security.

4. Oral inflation valve for cracks, security, ease of operation, and corrosion.

5. Patches for proper adhesion and wear. Refer to paragraph 24-53 for repair instructions.

6. Any other parts for wear or other damage.

7. All hardware for security of attachment, corrosion, damage, wear and, if applicable, ease of operation.

8. Preservers for stains, dirt, and general cleanliness. Refer to paragraph 24-40 for cleaning instructions.

9. Cross threading and/or loose manifold nuts.

24-33. MARKINGS INSPECTION. To inspect and restore marking, proceed as follows:

Materials Required

Quantity	Description	Reference Number
As Required	Ink, Drawing, Waterproof, Yellow	A-A-59291 NIIN 00-634-6583

1. Compare markings on preserver to those in table 24-4 and figure 24-1.

2. Restore any faded markings.

3. Deleted.

4. Correct any markings which do not agree with the table. Paint out old marking and enter new marking as close to proper position as possible.

24-34. INFLATION ASSEMBLY INSPECTION. To inspect life preserver inflation assemblies, proceed as follows:

1. Remove CO₂ cylinder from valve assembly.

2. Examine inflation device, actuating lever and lanyard for fraying, corrosion, stripped threads, and other damage.

3. Operate actuation lever several times to ensure that lever moves freely and that piercing pin moves properly inside valve body. Inspect point of piercing pin for serviceability. If point is flat, rounded, dull, or otherwise worn or damaged, replace inflation assembly.

NOTE

Each time inflation assembly gaskets or inflation assembly is removed and replaced for any reason, a functional test shall be conducted. Refer to paragraph 24-28. Use new gaskets when replacing device.

4. If any discrepancy is noted in device that is not repairable in accordance with paragraph 24-57 remove assembly and install a new inflation device.

24-35. INFLATION LANYARD INSPECTION. To inspect the inflation lanyard, proceed as follows:

Table 24-4. LPU-28/P Life Preserver Markings

Marking	Location	Letter Height
LIFE PRESERVER LPU-28/P SERIAL NO. [applicable number] CONTRACT NO. [applicable number] MFR DATE OF MFR	Center of casing between neck opening and waist strap (inside)	1/4 inch 1/8 inch 1/8 inch 1/8 inch 1/8 inch 1/8 inch
Notes: 1. Replacement markings shall be stamped or stenciled using waterproof yellow ink. 2. The LSC P/N 482 requires the same markings, lettering shall be legible.		

1. Ensure that CO₂ cylinder has been removed. Actuate inflation assembly.

2. Examine inflation lanyard for frays, ruptures, thin spots, split casing, and security of knots.

3. Replace unsatisfactory inflation lanyard. Refer to [paragraph 24-56](#).

4. Safety-wire inflation assembly in accordance with [paragraph 24-45](#).

24-36. LEAKAGE TEST. All life preservers shall be subjected to a leakage test each Calendar/Phase Inspection. To perform a leakage test proceed in accordance with [paragraph 24-38](#).

24-37. Test Fixture. A suggested test fixture, consisting of a three-way valve, pressure gage, and adapters for compartments being tested, is shown in [Chapter 3](#). Test fixtures must be fabricated to meet the requirements of the schematic shown in [figure 24-2](#).

24-38. Test Procedure. To test life preservers, proceed as follows:



Ensure test area is free of foreign objects.

1. Ensure carbon dioxide has been removed from preserver which has been functionally tested.

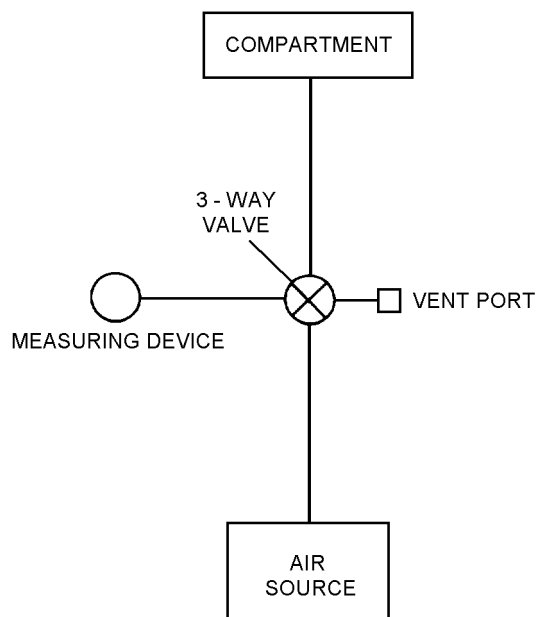


If 3-way valve is not used, measuring device valve must be closed when air feed valve is open.

Damage may occur to oral inflation valve if air supply pressure entering the life preserver exceeds ten (10) psi during this test.

NOTE

If a suitable air source is not available, water-pumped nitrogen (BB-N-411) may be substituted.



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Figure 24-2. Test Fixture Schematic

2. Insert 3/4-inch O.D. rubber hose from test fixture into oral inflation hose mouthpiece. Maintain pressure between rubber hose and oral inflation hose mouthpiece to ensure a good seal. Depress mouthpiece button to open oral inflation valve and alternately position leakage test fixture valve between measuring device, vent and air supply until over pressure relief valve opens (3.5 psig \pm 1.5 psig). Inspect for proper operation of relief valve. After relief valve test, adjust to proper test pressure of 2.0 psig and release mouthpiece button to close oral inflation valve.

3. The air supply shall be securely shut off and after a minimum of 15 minutes, the pressure shall be readjusted, if necessary, to the leakage test pressure. Record time.

4. Disconnect air supply and check for leaks. Ensure all valves are closed.

5. Record temperature and barometric pressure.

6. After a minimum of 4 hours after completing [step 3](#), record test pressures of the single chamber. Test pressure shall not decrease to less than 1.6 psig for a life preserver chamber, from a maximum test pressure of 2.0 psig.

7. Record temperature and barometric pressure and correct test pressure for any changes in temperature and barometric pressure. Refer to [tables 24-5](#) and [24-6](#).

EXAMPLE

UNCORRECTED TEST READING 1.70 PSI

	TEMP.	BARO.
START	75° F	29.90 IN. Hg
END	70° F	29.70 IN. Hg
DIFFERENCE	- 5° F	-0.20
CORRECTION	+0.155	-0.098

TEMP. CORRECTION	+ 0.155
+ BARO. CORRECTION	- 0.098
CORRECTION	+ 0.057

UNCORRECTED READING	1.700 PSI
+ CORRECTION	+ 0.057
CORRECTED READING	1.757 PSI

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Step 7 - Para 24-38

8. If pressure of chamber is below 1.6 psig inflate to leakage test pressure and coat with a soap solution to locate leaks. Mark leak areas. Rinse preserver with fresh water, air dry and repair in accordance with [paragraph 24-53](#).

Table 24-5. Temperature Conversion Chart

Temperature Difference (°F)	Correction (psi)
1	0.031
2	0.062
3	0.093
4	0.124
5	0.155
6	0.186
7	0.217
8	0.248
9	0.279
10	0.310
Rise in temperature: subtract from gage reading. Fall in temperature: add to gage reading.	

9. Deflate preserver in accordance with [paragraph 24-29](#).

10. Ensure that inflation valve lever is cocked. Install CO₂ cylinder in accordance with [paragraph 24-44](#).

24-39. RECORDS UPDATING. Make necessary entries on appropriate form in accordance with OPNAV-INST 4790.2 Series.

24-40. CLEANING AND SERVICING.

24-41. Cleaning and servicing consist of cleaning the casing, bladder, and installation of the CO₂ cylinders and, when required, safety wiring of the inflation valve actuating lever.

24-42. CLEANING OF LIFE PRESERVER CASINGS/BLADDER. To clean, machine washing is preferred on casings. Alternate method is by hand. Remove radio and other detachable items and proceed as follows:

Materials Required

Quantity	Description	Reference Number
As Required	Detergent, General Purpose	MIL-D-16791 NIIN 00-282-9699
As Required	Cloth, Lint-Free, Type II	MIL-C-85043 NIIN 00-044-9281
As Required	Talc, Technical	MIL-T-50036A IIN 01-080-9589

CAUTION

Solvents are not to be used in cleaning life preservers.

1. Prepare solution of detergent (MIL-D-16791) consisting of 1/4 to 1/2 ounce of detergent per gallon of water.

2. Apply cleaning solution to soiled area with a spray or sponge.

3. Allow solution to remain on surface for several minutes, then agitate with a soft brush or rag.

Table 24-6. Barometric Pressure Conversion Chart

Press. Diff. (inHG)	Corr. (psi)	Press. Diff. (inHG)	Corr. (psi)	Press. Diff. (inHG)	Corr. (psi)	Press. Diff. (inHG)	Corr. (psi)	Press. Diff. (inHG)	Corr. (psi)
0.01	0.005	0.16	0.078	0.31	0.152	0.46	0.225	0.61	0.299
0.02	0.010	0.17	0.083	0.32	0.157	0.47	0.230	0.62	0.304
0.03	0.015	0.18	0.088	0.33	0.162	0.48	0.235	0.63	0.309
0.04	0.020	0.19	0.093	0.34	0.167	0.49	0.240	0.64	0.314
0.05	0.025	0.20	0.098	0.35	0.172	0.50	0.245	0.65	0.319
0.06	0.030	0.21	0.103	0.36	0.176	0.51	0.250	0.66	0.323
0.07	0.035	0.22	0.108	0.37	0.181	0.52	0.254	0.67	0.328
0.08	0.040	0.23	0.113	0.38	0.186	0.53	0.260	0.68	0.333
0.09	0.045	0.24	0.118	0.39	0.191	0.54	0.265	0.69	0.338
0.10	0.049	0.25	0.123	0.40	0.196	0.55	0.270	0.70	0.343
0.11	0.054	0.26	0.127	0.41	0.201	0.56	0.275	0.71	0.348
0.12	0.060	0.27	0.132	0.42	0.206	0.57	0.279	0.72	0.353
0.13	0.064	0.28	0.137	0.43	0.211	0.58	0.284	0.73	0.358
0.14	0.069	0.29	0.142	0.44	0.216	0.59	0.289	0.74	0.363
0.15	0.073	0.30	0.147	0.45	0.221	0.60	0.294	0.75	0.368
Rise in pressure: add to gage reading. Fall in pressure: subtract from gage reading.									

4. Rinse surface thoroughly with water; wipe with a cloth or sponge. Repeat this application until surface is free from all solution.

5. Dry casing before use and dry bladder with a lint-free cloth (MIL-C-85043). Apply a light coating of talc (MIL-T-50036A).

24-43. SALTWATER DECONTAMINATION (Soniform Model P/N SF8580). After every immersion in salt water, the LPU-28/P (Soniform Model P/N SF8580) life preserver shall be rinsed in clean fresh water as follows:

1. Open casing and rinse in fresh water.
2. Depress oral inflation valve and partially fill bladder with fresh water only. Do not use any detergent.
3. Inflate life preserver with air source.
4. Shake life preserver to thoroughly rinse bladder.

5. Hold with oral inflation hose at lowest position. Depress oral inflation valve and allow water to drain.

6. Repeat [steps 2 through 5](#) one or two times.

7. Disconnect oral inflation hose at bladder and allow to dry.

24-43A. SALTWATER DECONTAMINATION (LSC P/N 482). After every immersion in salt water, the LPU-28A/P (LSC P/N 482) life preserver shall be rinsed in clean fresh water as follows:

Support Equipment Required

Quantity	Description	Reference Number
1	Wrench, 9/16-inch	—
1	Tool, Valve Core	8769A or equivalent (CAGE 27783) NIIN 01-354-5423

1. Open casing and rinse in fresh water.
2. Inspect bladder to see if salt water has entered bladder internally. If salt water is not present inside bladder, disregard steps 3 thru 13 and allow life preserver to dry. If salt water is present in bladder, steps 3 thru 13 must be completed.
3. Depress oral inflation valve and partially fill bladder with fresh water only. Do not use detergent.
4. Inflate life preserver from shop air source.
5. Shake life preserver to thoroughly rinse bladder.
6. Remove cap nut and inflator from valve stem, discard top and bottom gaskets.
7. Remove check valve from inflator stem and discard.
8. Allow water to drain from bladder out valve stem.
9. Depress oral inflation valve and allow fresh water to flow through bladder, turning bladder so all areas receive water flow.
10. Using shop air source, blow out excess water by applying shop air through oral inflation valve allowing water to drain out valve stem. Hang life preserver and allow to dry.
11. Install new check valve in accordance with paragraph 24-59.
12. Install new gaskets and removed inflator in accordance with paragraph 24-58.

13. Perform leakage test in accordance with paragraph 24-36.

24-44. INSTALLATION OF CO₂ CYLINDER. To install CO₂ cylinder, proceed as follows:

Support Equipment Required

Quantity	Description	Reference Number
1	Scale (Gram)	A-A-52021-1 NIIN 00-514-4117 or equivalent
1	Die, Cylinder Thread Chaser	1842-008-01 (CAGE 03688) NIIN 00-069-4040

Materials Required

Quantity	Description	Reference Number
1	Seat Seal	849AML NIIN 01-291-3593
1	Cylinder, CO ₂	MIL-C-25369 Type II, 28 - 31 Gram NIIN 00-543-6693

NOTE

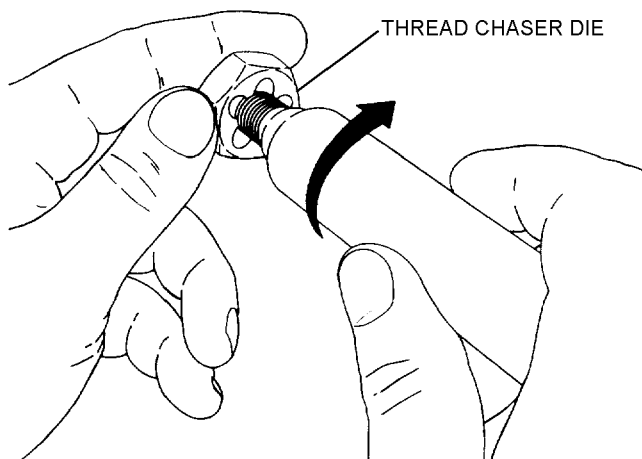
Weight of charged cylinder will vary according to manufacturer.

1. Weigh a charged cylinder and compare the minimum stamped weight with the scale weight. Discard and replace cylinder if scale weight is 2 grams less than minimum stamped weight.
2. The LPU-28/P life preserver inflation assembly consists of an inflator P/N 3063 (NIIN 01-218-6737) and a CO₂ cylinder MIL-C-25369, Type II, 28 to 31 gram (NIIN 00-543-6693).
3. Ensure that inflator lever is in a closed position.

CAUTION

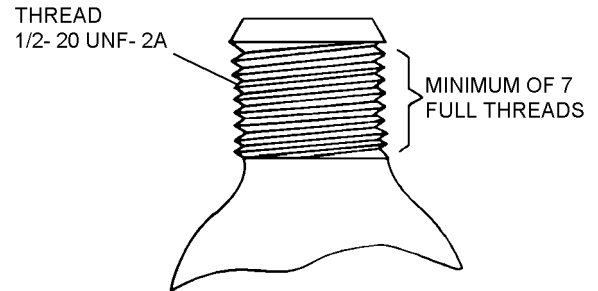
Steel threads on CO₂ cylinder can cause damage to aluminum threads on inflator if cylinder is not carefully threaded. If binding occurs during installation of cylinder, use thread chaser die on cylinder thread to cut free excessive plating. Reinstall cylinder. If binding still occurs, replace cylinder.

4. To assure a firm cylinder seat, conduct a cylinder thread count. Threaded portion of cylinder neck shall contain a minimum of seven full threads to assure a firm cylinder seat within valve body. Any cylinder found with less than seven full threads shall be discarded. See figure 24-3.



Step 4 - Para 24-44

X0044004



10240003

Figure 24-3. Cylinder Thread Count

5. After performing functional test, insert a new seat seal gasket from kit. At intermediate inspection intervals, inspect condition of gasket and replace if necessary.

6. Install CO₂ cylinder into inflator body as far as hand twisting will permit.

NOTE

When replacing CO₂ cylinder, ensure that CO₂ cylinder passes through the holding loop.

7. Safety-wire inflator as required in accordance with [paragraph 24-45](#).

8. Secure inflation valve protective cover.

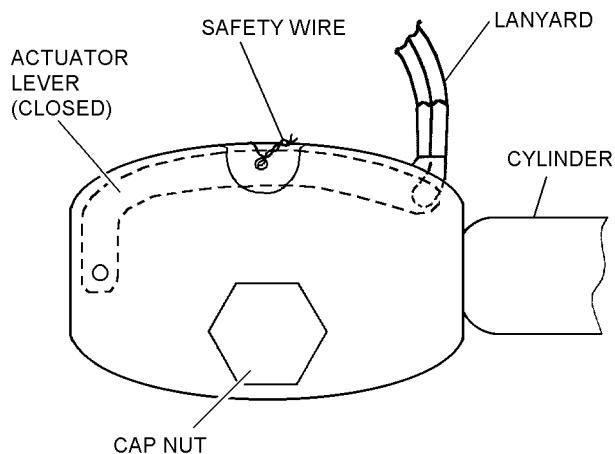
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24-45. SAFETY-WIRING. To safety-wire the inflation assembly, proceed as follows:

Materials Required		
Quantity	Description	Reference Number
As Required	Copper Wire, Uncoated, Type S, 0.0159-inch Diameter	QQ-W-343 NIIN 00-236-9501

1. Pass a single strand of uncoated, 0.0159-inch Type S copper wire through hole in inflation assembly body and through hole in actuation lever.

2. Twist the wire a minimum of four times and trim the excess.



X0045002

Step 2 - Para 24-45

24-46. REPAIR/REPLACEMENT.

24-47. These instructions for the repair or fabrication of various components or subassemblies of life preservers are to ensure that appropriate items of equipment remain in Ready For Issue (RFI) status. Reference numbers for parts which are defective, corroded or worn and require replacement are included in the applicable paragraph in this chapter.

24-48. Replacement of easily removed assembly components such as CO₂ inflation valve is authorized in addition to repair and replacement procedures documented in this chapter. The life preserver shall be subjected to a functional and leakage test each time CO₂ inflation valve is removed and replaced for any reason, and each time inflation valve gaskets are replaced.

24-49. DETERMINATION OF REPAIRABILITY. Patching of holes, cuts, tears or punctures 1-inch square or less are the only repairs authorized in a life preserver bladder.

24-50. Life preserver shall be considered beyond repair for any of the following reasons:

1. Porous fabric areas on flotation bladder.
2. Split or open bladder seams.
3. Leakage test failure resulting from other than repairable cut, tear or puncture.
4. Holes, cuts, tears or punctures within 1 inch of flotation bladder seams.
5. Deterioration of the rubberized fabric caused by oil, grease, or any other foreign substance.
6. Deterioration of the rubberized fabric caused by a heavy mildewed condition.

24-51. CASING REPAIR PROCEDURES. To repair casings, proceed as follows:

Materials Required		
Quantity	Description	Reference Number
As Required	Thread, Nylon, High Temperature Resistant, Sage Green	MIL-T-83193 NIIN 00-405-2252
	-or-	
As Required	Thread, Nylon, Type II, Size E, Sage Green	V-T-295 NIIN 00-204-3884

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Materials Required (Cont)

Quantity	Description	Reference Number
As Required	Cloth, Aramid, Non-melting, Type 456, Class I, Sage Green	MIL-C-83429 NIIN 01-142-2064
As Required	Tape, Hook, Type II, Black	MIL-F-21840 NIIN 01-115-7617
As Required	Tape, Pile, Type II, Black	MIL-F-21840 NIIN 01-978-0113

1. Minor holes, rips, tears, or abrasions in casing assembly may be repaired if they do not exceed 2 inches.

2. Repair or replace loose or damaged hook and pile tape as required.

3. Remove bladder in areas being repaired.

4. For all repairs plus loose or broken stitching use 6 to 8 stitches per inch and back stitch one half inch.

5. Casing assembly worn beyond economical repair shall be discarded.

24-52. CEMENTING LIFE PRESERVERS. Cementing of bladder shall be performed as follows:

Materials Required

Quantity	Description	Reference Number
1	Threaded Access Fitting Tool	5000-0000 (CAGE 58293) (See Note 1)
As Required	Cement (Clear Medium Bodied)	MIL-A-22010 NIIN 00-573-1502
As Required	Methyl Ethyl Ketone (MEK)	TT-M-261 NIIN 00-281-2762

Materials Required (Cont)

Quantity	Description	Reference Number
As Required	Cloth, Lint Free, Type II	MIL-C-85043 NIIN 00-014-9281

Note: Threaded Access Fitting Tool (5000-0000) may be open purchased (\$15) from:
Soniform, Inc. (CAGE 58293)
1908 Friendship Drive
El Cajon, CA 92020-11129
Tel: 619-562-3681
Fax: 619-562-3648

WARNING

Do not use cement or MEK near open flame, heat or electrical sparks. Avoid prolonged contact with skin or breathing of fumes. Use only in well ventilated area.

CAUTION

The LPU-28/P Life Preserver Flotation Assembly is constructed of polyurethane film. Only cement MIL-A-22010, and patches constructed from 5004 type material shall be used. Use only MEK to prepare polyurethane film flotation assemblies for cementing.

1. Remove bladder in accordance with [paragraph 24-60](#).

2. Clean both surfaces to be cemented with MEK and lint-free cloth. Allow areas to dry.

3. Using a small brush, apply and smooth out a small amount of cement to both surfaces to be cemented.

4. Immediately place pieces together. If cemented area has a cut or tear, butt edges of damage before applying patch. Roll out bubbles with a wooden or rubber roller. Inspect for proper application/cement.

5. Place a small weight over cemented area and allow to cure a minimum of 48 hours.

24-53. PATCHING LIFE PRESERVERS. Patching shall be performed as follows:

NOTE

The LSC P/N 482 bladder will not be patched. If it fails leak check, it shall be condemned.

CAUTION

The LPU-28/P Life Preserver Flotation Assembly is constructed of polyurethane film. Only cement MIL-A-22010, and patches constructed from 5004 type material shall be used.

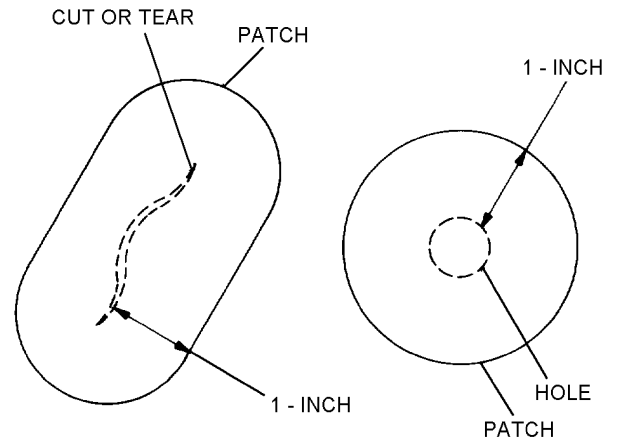
NOTE

Life Preserver is not repairable if it has holes, cuts, tears, or punctures over one-inch square.

Materials Required

Quantity	Description	Reference Number
As Required	Bladder Patches	5004 (CAGE 58293)

1. Cut a rounded patch 1 inch larger than damage on all sides.



X0053001

Step 1 - Para 24-53

2. Center patch over damaged area and trace an outline of patch on fabric.

3. Cement patch to damaged area in accordance with [paragraph 24-52](#).

4. Perform leakage test in accordance with [paragraph 24-36](#).

24-54. INSPECTION RECORD PATCH.

NOTE

The 28th In-Service Management Panel meeting for Aviation Life Support Systems rescinded the requirement for the packer to sign the Inspection Record Patch on life preservers. The requirement for all other documentation remains unchanged. The reason for this change is that most history patches are unreadable and the packer's and inspector's names are documented on Aviation Crew Systems Records.

Figure 24-4 Deleted.

24-55. RECEMENTING OF BLADDER FIN SEAMS. This repair shall be performed only if a flotation bladder does not leak, that is, if only outer seam around bladder is split or separating. To recement an open fin seam proceed as follows:

- 1. If fin seam is not leaking, recement open material surrounding flotation bladder in accordance with paragraph 24-52.
- 2. Perform a leakage test in accordance with paragraph 24-36.



Recementing of ruptured fin seams is not authorized for heat sealed life preservers.

NOTE

If bladder exhibits leakage from fin seam, bladder cell has ruptured. Dispose of life preserver after usable parts have been salvaged.

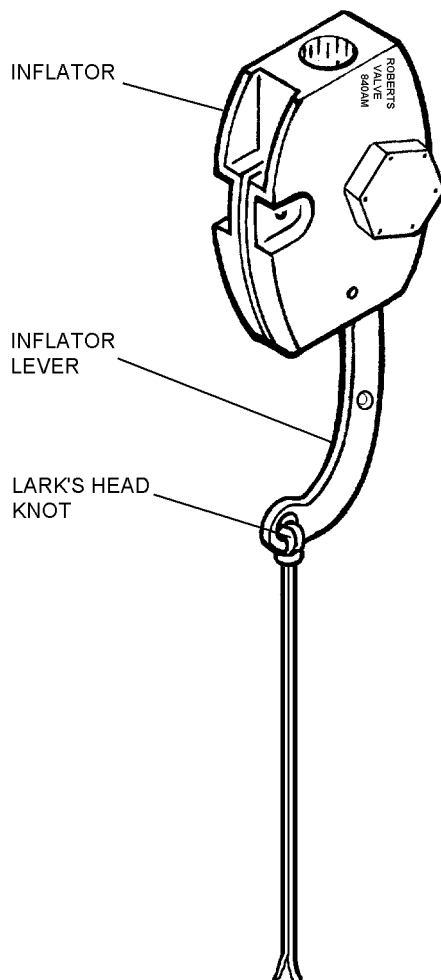
24-56. REPLACEMENT OF LANYARD CORD. To replace lanyard cord, proceed as follows:

Materials Required		
Quantity	Description	Reference Number
11 inches	Cord, Nylon, Type I (color optional)	MIL-C-5040

- 1. Carefully remove carbon dioxide cylinder from the inflator assembly.
- 2. If desired, remove nut and rubber gasket retaining the inflator and remove inflator and lanyard assembly.

3. Cut lanyard to be replaced and discard.

4. Fold the 11-inch length of cord in half, pass folded end through hole in end of inflator lever and tie the cord strands with a lark's head knot.

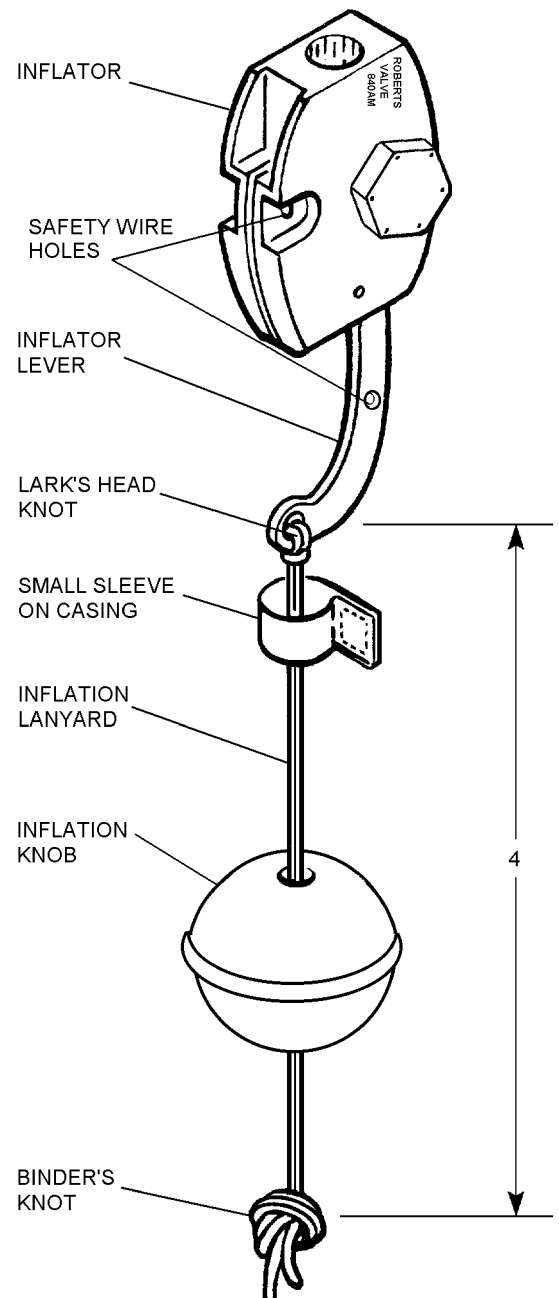


Step 4 - Para 24-56

X0056004

5. Pass the cord strands through the small sleeve attached to casing.

6. Thread both cord strands through the single hole at the top of the knob and tie a binder knot four inches from the lever end.



Step 6 - Para 24-56

X0056006

7. Reinstall inflator assembly in accordance with [paragraph 24-58](#). Safety wire in accordance with [paragraph 24-45](#). Reinstall CO₂ cylinder in accordance with [paragraph 24-44](#).

24-57. REPAIR OF CORRODED CO₂ INFLATION VALVE. To repair CO₂ inflation valve, proceed as follows:

NOTE

No repairs are authorized for the inflation valve on the LSC P/N 482. If it fails, it shall be replaced.

Materials Required

Quantity	Description	Reference Number
As Required	Lubricant, Silicone	DC7 (CAGE 71984) NIIN 00-975-0712
1	Valve Stem Kit (Note 1)	105AS100-6 (CAGE 30003) NIIN 00-113-8290
1	Seat Seal	849AML NIIN 01-291-3593
As Required	Cloth, Emery No. 240	-
1	Valve, Inflation	3063 (CAGE 50293) NIIN 01-218-6737
As Required	Abrasive Mat	MIL-A-9962 NIIN 00-967-5093
As Required	Corrosion Preventive Compound (Amiguard) Type I	MIL-C-85054 NIIN 01-041-1596

Notes: 1. Valve Stem Kit, P/N 105AS100-6, NIIN 00-113-8290, contains one top and one bottom gasket.

1. Remove CO₂ cylinder from valve.
2. Remove cap nut. Remove inflation valve from preserver. Discard two gaskets on valve stem.
3. Remove grooved taper pin (retaining lever) from inflation valve, using awl and mallet. See [figure 24-5](#).
4. Remove lever, spring, and piercing pin. If spring is broken or corroded, replace entire valve.
5. If piercing pin or actuating lever is corroded, remove corrosion with abrasive mat. If abrasive mat is ineffective, use 240 grit emery cloth. Do not dam-

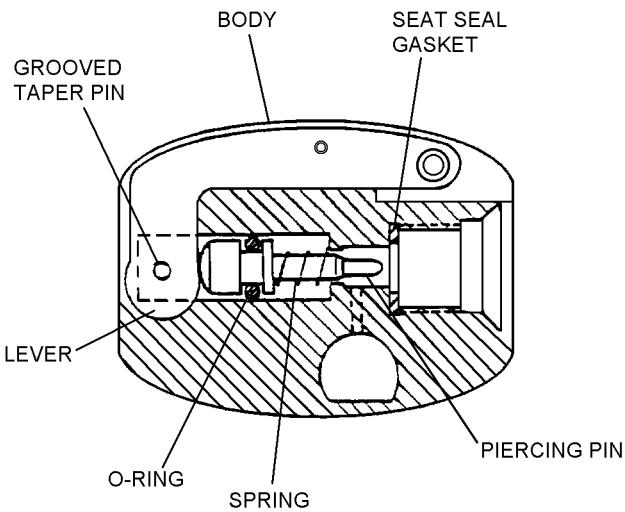


Figure 24-5. CO₂ Inflation Assembly

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age O-ring on piercing pin. Wipe off any dirt or moisture from actuating lever and apply a thin coat of MIL-C-85054 and allow to dry.

6. Clean residue from actuating lever on piercing pin. Lightly coat base of piercing pin with silicone lubricant.

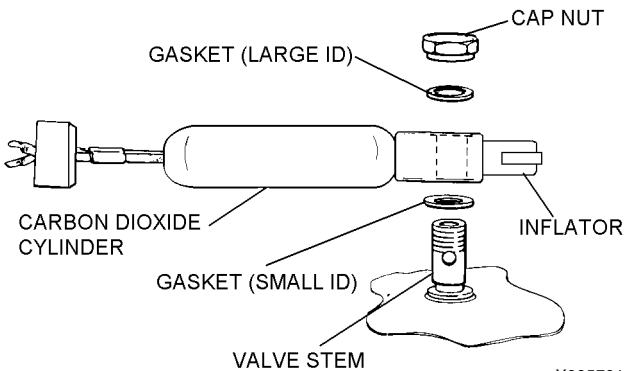
7. Reassemble inflation valve and operate actuating lever three or four times. Ensure that lever and piercing pin move freely.

8. If piercing pin and lever do not move freely, obtain replacement valve.

9. Reinstall inflation valve on life preserver using new gaskets.

10. Install cap nut onto valve stem and torque to a value of 8 ± 1 in-lb.

11. Reinstall new seat seal gasket and CO₂ cylinder.



Step 11 - Para 24-57

24-58. REPLACEMENT OF TOP AND BOTTOM GASKETS. To replace the top and bottom gaskets on the inflator, proceed as follows:

Support Equipment Required

Quantity	Description	Reference Number
1	Wrench, 9/16-inch	—

Materials Required

Quantity	Description	Reference Number
1	Valve Stem Kit (Note 1)	105AS100-6 (CAGE 30003) NIIN 00-113-8290

Notes: 1. Top and bottom gaskets are obtained from Valve Stem Kit, P/N 105AS100-6, NIIN 00-113-8290, which contains one top and one bottom gasket.

1. Remove cap nut and top gasket from inflator.

WARNING

Ensure that gaskets are properly positioned. The top gasket has a larger internal diameter than the bottom gasket.

2. Remove inflator and replace bottom gasket.
3. Carefully place inflator onto valve stem.
4. Install top gasket onto valve stem.

5. Tighten cap nut onto valve stem and torque to a value of 8 ± 1 in-lb.

6. Perform functional and leakage tests. Refer to paragraphs 24-28 and 24-36.

24-59. REPLACEMENT OF CHECK VALVE ASSEMBLY. To replace a defective check valve assembly, proceed as follows:

Support Equipment Required

Quantity	Description	Reference Number
1	Tool, Valve Core	8769A or equivalent (CAGE 27783) NIIN 01-354-5423
1	Wrench, Torque	—

Materials Required

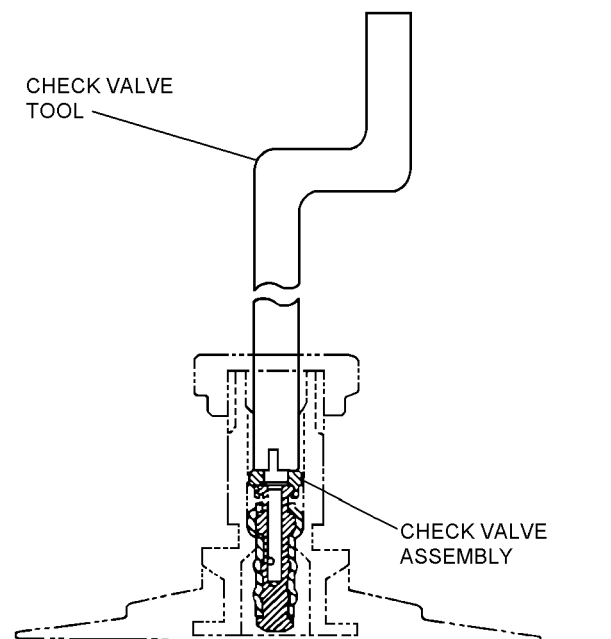
Quantity	Description	Reference Number
1	Valve, Pneumatic Inflator (Check Valve Assembly) (Note 1)	Schrader-Bridgeport P/N 8457500047

Notes: 1. Schrader-Bridgeport P/N 8457500047 must be open purchased from:
Schrader-Bridgeport Intl
205 Frazier Rd
P.O. Box 668
Altivista, VA 24517
Phone (804) 369-8875

1. If not available, fabricate a valve core tool as shown in Chapter 3.

2. Remove inflator cap nut.

3. Insert valve core tool and unscrew check valve from valve stem.



Step 3 - Para 24-59

X0059003

NAVAIR 13-1-6.1-2

4. Insert new check valve in valve stem and tighten with valve core tool hand tight.

5. Replace cap nut and torque to a value of 8 ± 1 in-lb.

6. Perform a functional and leakage test on life preserver cell that was repaired. Refer to [paragraphs 24-28](#) and [24-36](#).

24-60. DISASSEMBLY OF THE LIFE PRESERVER.

To disassemble for bladder or case repairs, proceed as follows:

NOTE

This paragraph does not apply to the LSC P/N 482.

Support Equipment Required

Quantity	Description	Reference Number
1	Spare Parts/Repair Kit	8590 (CAGE 58293)
1	Threaded Access Fitting Tool	5000 (CAGE 58923) (See Note)

Note: The Spare Parts/Repair Kit 8590-0000 contains the Threaded Access Fitting Tool 5000-0000. The Spare Parts/Repair Kit 8590-0000 and Threaded Access Fitting Tool 5000-0000 may be open purchased from:

Soniform, Inc. (CAGE 58293)
1908 Friendship Drive
El Cajon, CA 92020-1129
Tel: 619-562-3681
Fax: 619-562-3648

1. Remove the CO₂ cylinder.

2. Remove elbow-oral inflating hose assembly. See [paragraph 24-62](#) and [figure 24-6](#).

3. Remove the pressure relief valve. See [paragraph 24-63](#) and [figure 24-7](#).

4. Untie the knot in the lanyard and remove the round pull knob. Unscrew the cap on the inflator assembly and remove the inflator assembly.

5. Remove the threaded access fittings. Grip the internal fitting from the back of the casing and

through the fabric of the vest, insert the special knurled tool (furnished with the spare parts/test kit) into the external fitting and unscrew from the casing. Care should be taken not to damage the circular sealing ridges on the external fitting. In some cases it may be necessary to grip the external fitting with channel-lock pliers to unscrew it (this destroys the fitting and requires replacement). Remove the internal fitting through the hole in the bladder and fabric envelope.

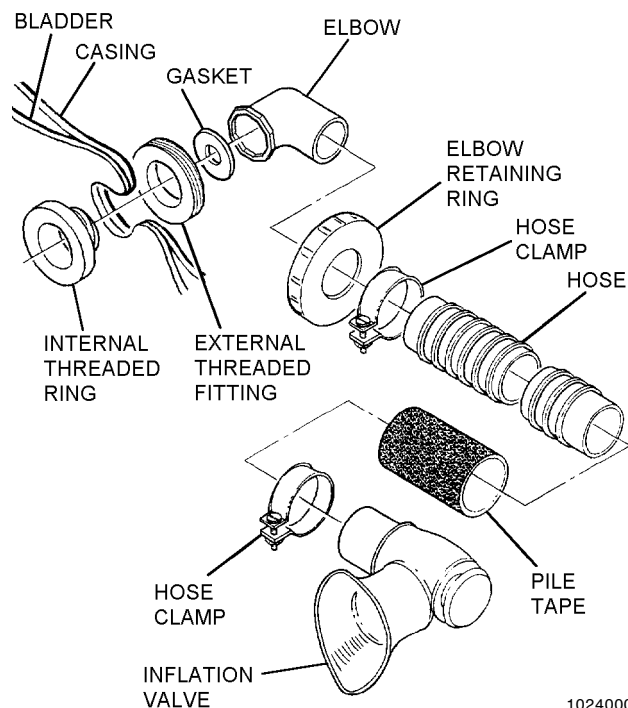


Figure 24-6. Elbow-Oral Inflating Hose

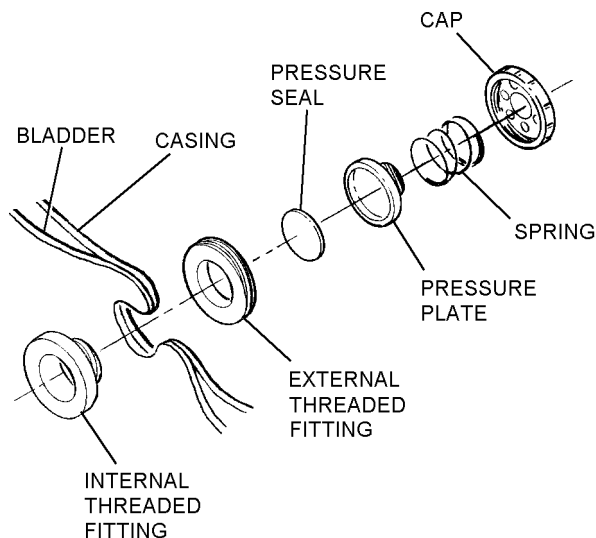


Figure 24-7. Pressure Relief Valve

6. Unzip the zipper around the neck opening and in the outer envelope. Remove the bladder from outer envelope.

24-61. REASSEMBLY OF THE LIFE PRE-SERVER. To reassemble, proceed as follows:

NOTE

This paragraph does not apply to the LSC P/N 482.

Support Equipment Required

Quantity	Description	Reference Number
1	Threaded Access Fitting Tool	5000 (CAGE 58293)

Materials Required

Quantity	Description	Reference Number
As Required	RTV Silicone Rubber, Sealant	NIIN 00-843-0802
As Required	Isopropyl Alcohol	TT-I-735A

1. Carefully clean and inspect all fittings and seals. Remove RTV with alcohol. Replace damaged or worn fittings as required.

2. Insert the bladder into the fabric outer envelope and position so that bladder lies as flat as possible. Align holes in bladder with those in envelope.

3. Install the threaded access fittings. Insert the internal threaded fitting into the bladder through the corresponding holes in the envelope and bladder. Position so that the face of the fitting with the four notches is away from the access hole in the bladder. Lay the casing out flat and carefully align the access holes in the envelope and bladder with the internal threaded-fitting.



Do not allow RTV sealant to contact any surface other than the threaded portion of fitting.

4. Apply a thin coat of the RTV sealant to the small (1-inch) diameter threads of the external threaded fitting and to the adjacent surface with the two small circular ridges. Allow the RTV to cure for 10 to 20 seconds, then engage the threads of the

external fitting into the internal fitting and using the special knurled tool, hand tighten to a firm, snug fit (30 to 40 in-lb). Inspect for proper position and tightness of fittings.

5. Install the CO₂ inflation assembly using the new top and bottom gaskets. Inspect for proper installation.

6. Install lanyard cord through channel on casing. Reinstall round pull knob and retie binder knot four inches from the lever end.

7. Install pressure relief valve seal. See paragraph 24-63 and figure 24-7.

8. Install elbow-oral inflating hose assembly. See paragraph 24-62 and figure 24-6.

9. Install CO₂ cylinder.

24-62. REPLACEMENT OF COMPONENTS FOR ELBOW-ORAL INFLATING HOSE. To replace the oral inflating components, proceed as follows:

NOTE

This paragraph does not apply to the LSC P/N 482.

Materials Required

Quantity	Description	Reference Number
As Required	Isopropyl Alcohol	TT-I-735A
As Required	Silicone Compound	G624 NIIN 00-880-7616
As Required	Thread Sealing Compound	NIIN 00-822-3505

1. Grip the elbow and unscrew the black plastic retaining ring without allowing the elbow to rotate.

2. Remove the elbow-oral inflating hose, including the thick rubber gasket under the elbow.

3. Check the condition of thick rubber gasket for cleanliness and wear.

4. Clean sealing surface with isopropyl alcohol. Replace gasket if necessary.

5. Loosen hose clamp then remove hose from elbow. Check elbow for cracks, or damage, replace if necessary.

6. Check hose for tears, holes, or wear, replace if necessary.

7. Loosen hose clamp then remove inflation valve from hose. Check for wear, damage and security of rubber mouthpiece.

8. Check hook and pile tape on hose and casing for secure attachment.

9. Check hose clamps for corrosion, wear and security. Replace if necessary.

10. Check hose clamps for corrosion, wear, and security. Replace if necessary.

11. Reinstall each component in order of removal (see figure 24-6).

12. Place thick rubber gasket between threaded access fitting and elbow. Use small dab of silicone compound (G624) to help hold gasket.

13. Grip the elbow and screw the black plastic retaining ring without allowing the elbow to rotate.

24-63. REPLACEMENT OF PRESSURE RELIEF VALVE SEAL GASKET. To replace the pressure relief valve seal gasket, proceed as follows:

NOTE

This paragraph does not apply to the LSC P/N 482.

Materials Required		
Quantity	Description	Reference Number
As Required	Isopropyl Alcohol	TT-I-735A
As Required	Silicone Compound	G624 NIIN 00-880-7616
1	Gasket, Pressure Seal	NIIN 01-098-7457
As Required	RTV Silicone Rubber, Sealant	NIIN 00-843-0802

1. Turn cap counterclockwise and remove.
2. Remove spring and pressure plate from valve body (see figure 24-7).
3. Remove damaged pressure seal gasket from pressure plate and carefully clean and inspect all fittings. Remove sealing compound with alcohol.

4. Replace damaged or worn fittings as required. Use RTV sealant as necessary.

5. Apply a small dab of silicone compound (G624) to the center of one side of the new pressure seal gasket and stick it to the plastic pressure plate.

6. Install spring and then screw pressure relief valve cap onto threaded access fitting, turning it clockwise as far as it will go.

7. Subject to functional and leakage test. Refer to paragraph 24-28 and 24-36.

24-64. FABRICATION OF AN/PRC-125 RADIO STOWAGE ASSEMBLY AND MODIFICATION FOR STOWAGE OF THE AN/PRC-149 RADIO.

Some production model LPU-28/P life preservers come rigged to accept an AN/PRT-125 radio. There is a channel for the earphone and cable vice the velcro flap assembly. To modify life preservers that have no rigging for radio stowage, proceed from step 1. To modify a life preserver rigged with an earphone and cable channel to a velcro flap, proceed from step 8.

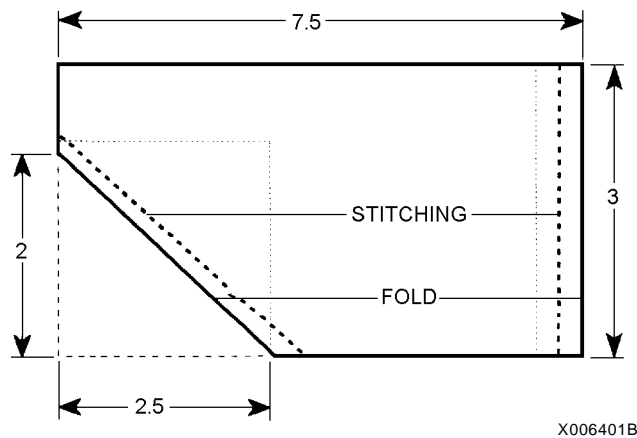
Materials Required		
Quantity	Description	Reference Number
18-inch Length	Webbing, Tape, Nylon, 3-inch Sage Green	MIL-W-25361 NSN 8300-00-543-7939
8-inch Length	Pile, Tape, 2-inch, Black	MIL-F-21840 NSN 8315-00-926-4930
8-inch Length	Hook Tape, 2-inch, Black	MIL-F-21840 NSN 8315-00-926-4931
As Required	Thread, Nylon, Size E, Olive Drab	V-T-295
24-inch Length	Cord, Nylon Type 1	MIL-C-5040 NIIN 00-240-2154

NOTE

All stitching shall be made using 301 lock-stitch, 8 to 10 stitches per inch with size E thread. Backstitch a minimum of 1/2 inch at ends of all stitching.

1. Fabricate antenna stowage sleeve as follows:
 - a. Cut one 8-inch piece of 3-inch webbing and sear ends.

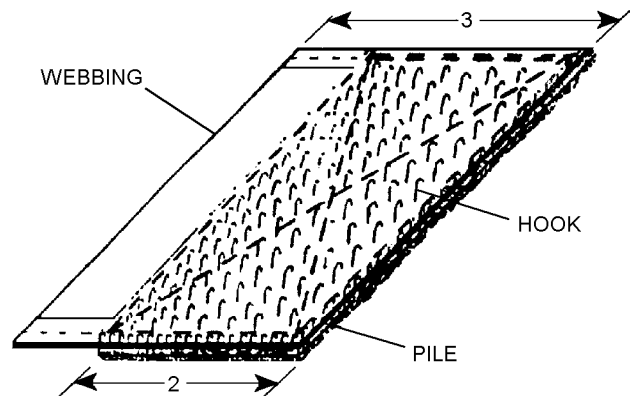
b. Lay webbing out left to right on worktable. Starting from the left-hand lower corner of the webbing, make a mark 2-1/2-inches along bottom edge of 8-inch length of webbing, and make a mark 2-inches high at left-hand end. Mark an angled line between these two marks. Fold webbing under along marked angled line and stitch 1/4-inch from fold. Fold the right-hand end of webbing under by 1/2-inch and stitch 1/4-inch in from fold. Finish length shall be 7-1/2 inches.



Step 1b - Para 24-64

webbing will be uncovered in a 1-inch by 4-inch area. Ensure pile tape is stitched to finished side of material. Stitch sandwich together using a cross box stitch, 1/4-inch from sides of pile and hook tapes.

f. Repeat [step e](#) using remaining webbing, pile tape and hook tape.



Step 2f - Para 24-64

2. Fabricate earphone and cable stowage cover flaps as follows:

a. Cut two 5-inch pieces of 3-inch webbing and sear ends.

b. Fold each webbing end under by 1/2-inch and stitch 1/4-inch from fold. Each piece of 3-inch webbing should measure 4-inches long after stitching.

c. Cut two 4-inch long pieces of 2-inch pile tape.

d. Cut two 4-inch long pieces of 2-inch hook tape.

e. Sandwich one piece of webbing between one piece of pile tape and one piece of hook tape. Position webbing, pile and hook tapes so the 4-inch dimension for the three parts match up, and both pile and hook tapes are on the same edge of the webbing. The

3. For ease during sewing, unzip casing on LPU-28/P and remove oral inflation assembly.

4. Remove 2-inch by 3-inch miscellaneous equipment mount pile tape from top front of casing near oral inflation assembly. This pile tape is no longer required.

NOTE

SAR-1 life preservers did not have this pile tape installed.

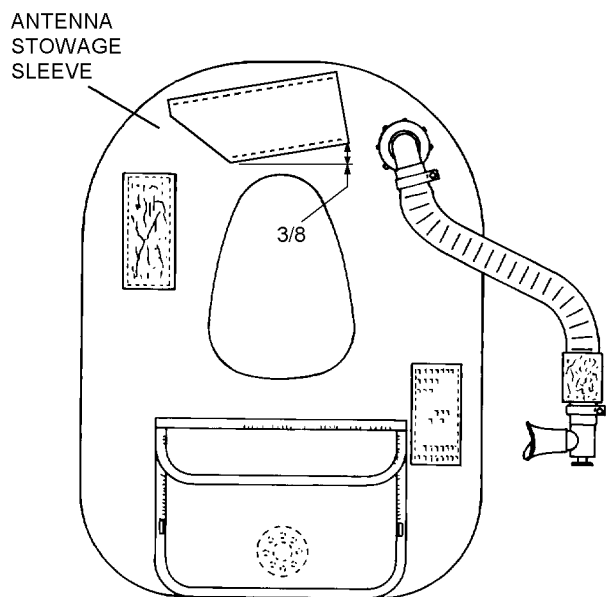
5. Installation of antenna stowage and earphone and cable stowage over flaps.

NAVAIR 13-1-6.1-2

a. Center top (longest) edge of antenna stowage sleeve on front of casing to gusset hem, approximately 3/4-inch from hemline.

b. Turn antenna stowage sleeve at slight angle so that right-hand bottom corner is turned 3/8-inch higher towards centerline of oral elbow flange nut. Mark location.

c. If needed adjust sleeve to fit on casing fabric. Stitch antenna stowage sleeve to casing, ensuring only top and bottom edges are stitched.

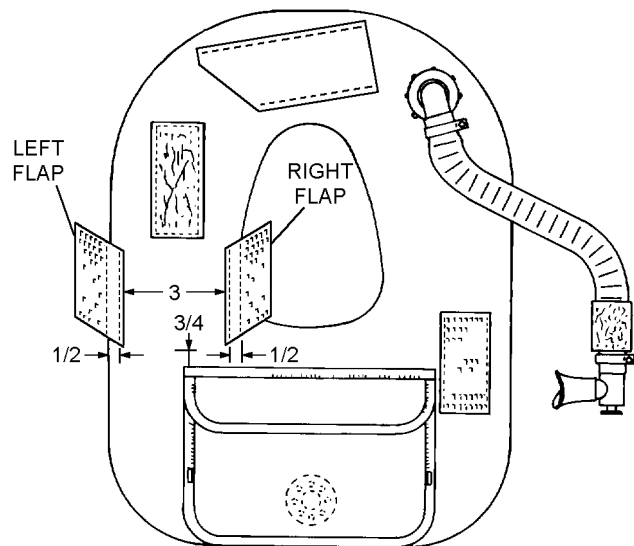


Step 5c - Para 24-64

X006405C

that the uncovered webbing points towards casing outer seamline, and move flap up or down so flap is approximately 3/4-inch up from outer hem of casing pocket. Stitch left earphone and cable stowage flap to casing, 1/4-inch in along uncovered edge of flap webbing.

e. Position the remaining earphone and cable stowage flap so the uncovered webbing is pointed towards the right (towards the centerline of the casing), the pile tape is facing up, and the bottom edge of the flap is approximately 3/4-inch up from hem of casing pocket. Adjust the position of the right flap so the edge of the uncovered webbing will be approximately 3 1/4-inches from the left flap-to-casing stitching. Stitch right earphone and cable stowage flap to casing, 1/4-inch in along uncovered edge of flap webbing. When completed the distance between the flap seams will be 3 inches.

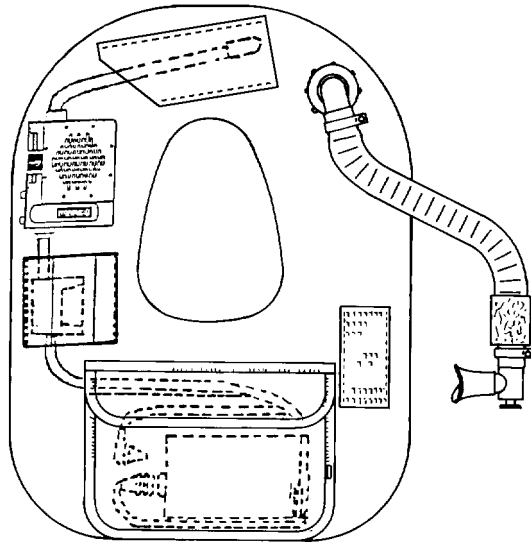


Step 5e - Para 24-64

X006405E

d. Position one earphone and cable stowage flap on the front left casing, under the distress light mount pile tape. Ensure flap pile tape is facing up. Turn the flap so

6. Zip casing back onto LPU-28/P and reinstall oral inflation assembly. Conduct leakage test.



AN/PRC-125 STOWAGE IN THE
LPU-28/P

X0064006

Step 6 - Para 24-64

7. Using a 24-inch length of Type 1 nylon cord, secure radio to the LPU-28/P. Using bowline knots, tie one end to radio and the opposite end to the loop under flap of pocket. Stow the AN/PRC-125 in pocket as required.

NOTE

The following steps are required to convert the earphone and cable channel to a velcro flap for use with the AN/PRC-149 radio.

8. Unzip life preserver casing so bladder can be repositioned during sewing.

9. Remove existing earphone and cable channel from casing by carefully cutting stitching.

10. Fabricate two earphone and cable stowage flaps in accordance with [step 2 \(paragraph 24-64\)](#) with the following modifications: the webbing pieces should be 4 inches long and the hook and pile tape pieces should be 3 inches.

11. Install manufactured flaps in accordance with [steps 5d and 5e](#).

12. Reposition bladder to proper position and close casing with zipper/slider.

13. Ensure installed radio is secured with a 24-inch length of type 1 nylon cord.

24-65. PACKING PROCEDURE FOR THE LPU-28/P LIFE PRESERVER ASSEMBLY.

24-66. The LPU-28/P Life Preserver is not folded or packed in a carrying case or pouch. Ensure that pre-saver has been inspected in accordance with [paragraph 24-17](#). For cleaning and servicing refer to [paragraph 24-40](#).

Section 24-4. Illustrated Parts Breakdown (IPB)

NOTE

This section does not apply to the LSC P/N 482. Any parts required must be procured open purchase through:

Lifesavings Systems Corp.
220 Elsberry Road
Apollo Beach, FL 33572-2289
Phone (813) 645-2748
(CAGE 64249).

24-67. GENERAL.

24-68. This section lists and illustrates the assemblies and detail of the LPU-28/P Life Preserver Assembly.

24-69. The Illustrated Parts Breakdown should be used during maintenance when requisitioning and identifying parts.

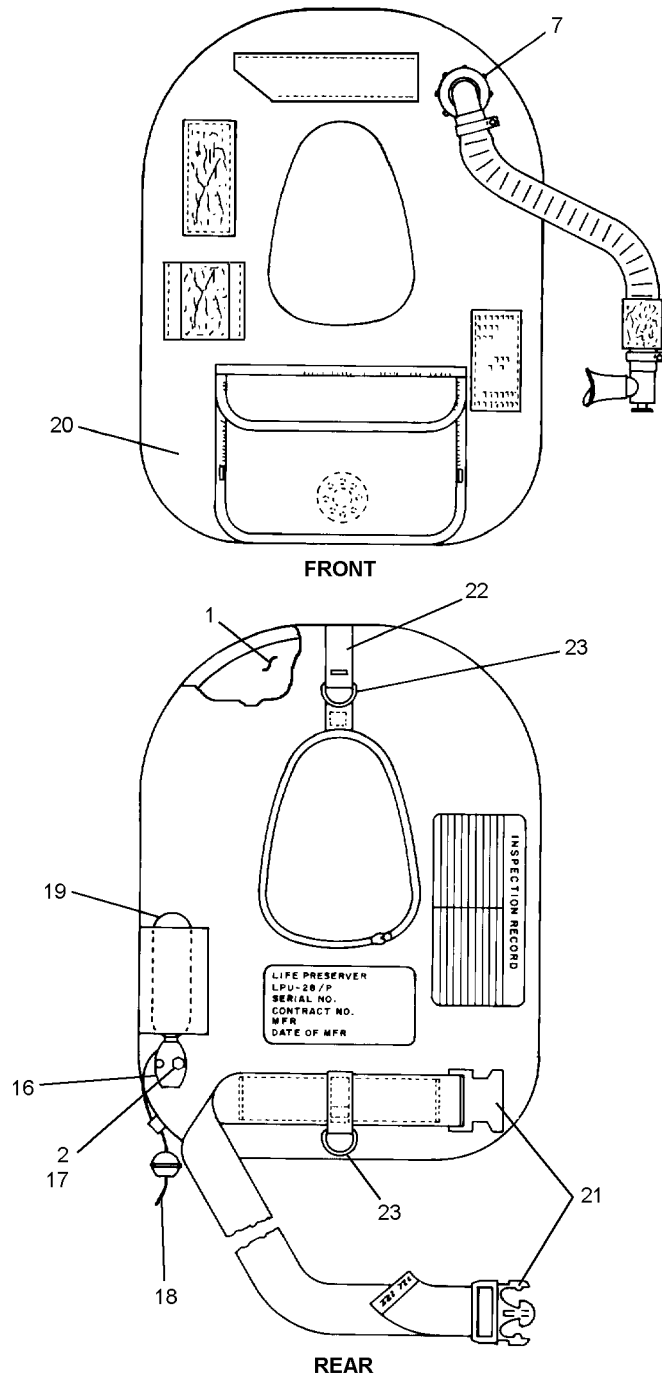


Figure 24-8. LPU-28/P Life Preserver Assembly, Illustrated Parts Breakdown (Sheet 1 of 2)

1024A008

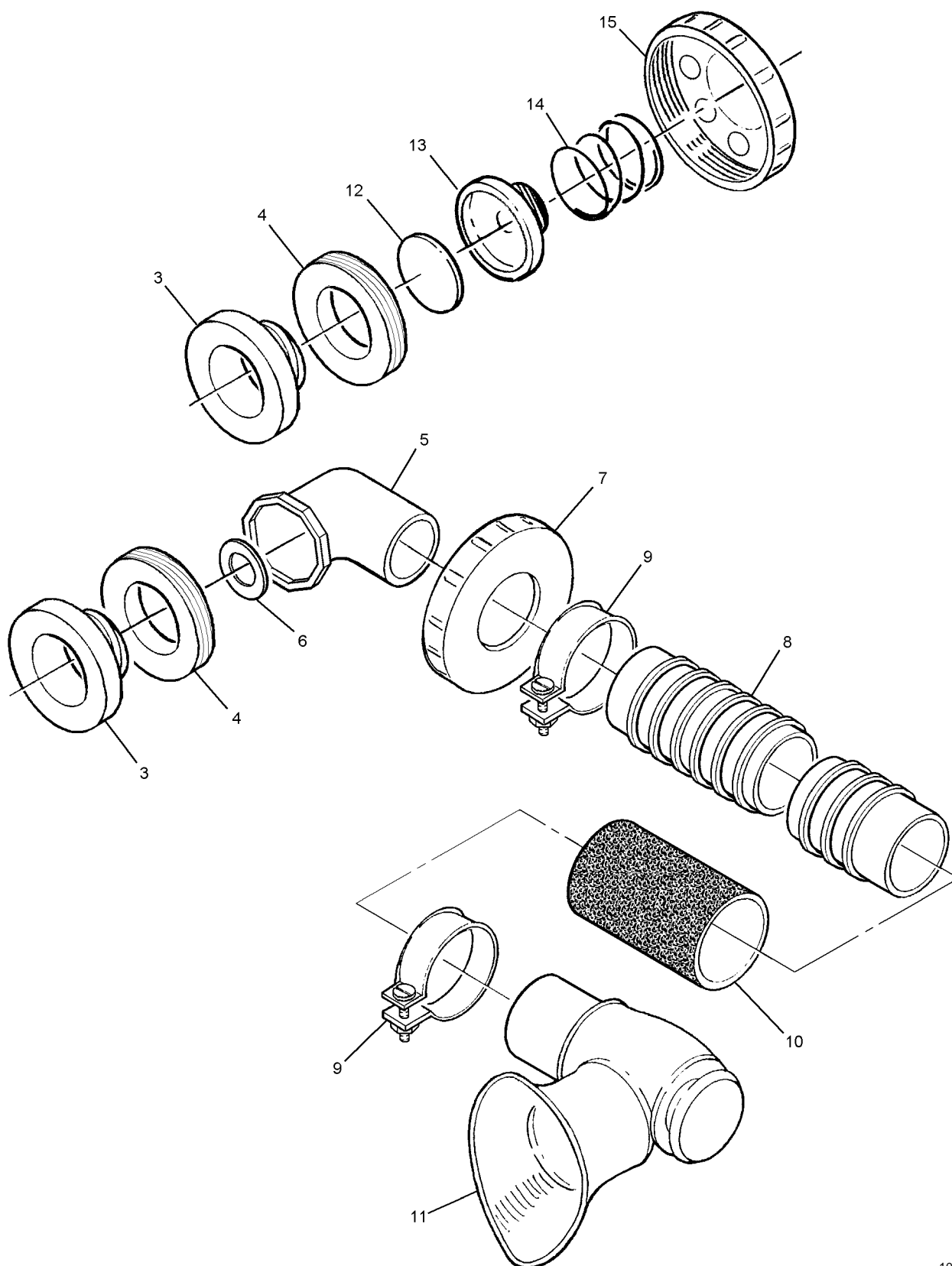


Figure 24-8. LPU-28/P Life Preserver Assembly, Illustrated Parts Breakdown (Sheet 2 of 2)

1024B008

NAVAIR 13-1-6.1-2

Figure and Index Number	Part Number	Description	Units Per Assembly	Usable On Code
		1 2 3 4 5 6 7		
24-8	NIIN 01-199-4974	LPU-28/P INFLATABLE LIFE PRESERVER (1577AS101-1, 30003) SF 8580 (58293)	REF	
-1	8581 NIIN 01-225-9757	. BLADDER ASSEMBLY (58293)	1	
-2	NIIN 01-081-0322	. CHECK VALVE, 67A319D18-1 (30003)	1	
-3	3001 NIIN 01-145-6713	. THREADED ACCESS FITTING, Internal (58293)	2	
-4	3000 NIIN 01-097-8652	. THREADED ACCESS FITTING, External (58293)	2	
-5	3022 NIIN 01-098-1780	. ORAL INFLATION ELBOW (58293)	1	
-6	3021 NIIN 01-097-9967	. ELBOW GASKET (58293)	1	
-7	3023 NIIN 01-219-2585	. RING, Retaining (58293)	1	
-8	1202	. ORAL INFLATION HOSE (58293)	1	
-9	1251 NIIN 01-222-7822	. HOSE CLAMP (58293)	2	
-10	1219	. ORAL INFLATION HOSE SLEEVE (Pile Tape) (58293)	1	
-11	3010 NIIN 01-224-4270	. ORAL INFLATION VALVE (58293)	1	
-12	3100 NIIN 01-098-7457	. PRESSURE SEAL GASKET (58293)	1	
-13	3043 NIIN 01-097-8416	. PRESSURE PLATE (58293)	1	
-14	1213 NIIN 01-219-2409	. PRESSURE RELIEF VALVE SPRING (58293) ..	1	
-15	3041 NIIN 01-219-2152	. PRESSURE RELIEF VALVE CAP (58293)	1	
-16	3063 NIIN 01-218-6737	. INFLATION ASSEMBLY (Note 1) (58293)	1	
-17	3037 NIIN 01-218-1055	. INFLATOR STEM CAP NUT (58293)	1	
-18	3031 NIIN 01-218-1143	. ACTUATION KNOB (58293)	1	
-19	NIIN 00-543-6693	. CO ₂ CYLINDER, Type II, 28-31 Grams MIL-C-25369 (81349)	1	
-20	TBP	. CASING ASSEMBLY	1	
-21	1224 NIIN 01-097-8651	. BUCKLE, Waist Strap (58293)	1	
-22	8582	. BACK STRAP (58293)	1	
-23	1225	. D-RING (50293)	2	
		Notes: 1. Top and bottom gaskets are obtained from Valve Stem Kit, P/N 105AS100-6, NIIN 00-113-8290, which contains one top and one bottom gasket. Seat seal is ordered seperately using P/N 849AML NIIN 01-291-3593.		

NUMERICAL INDEX

Part Number	Figure and Index Number	SM&R Code
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NIIN 00-543-6693	24-8-19	PAOZZ
NIIN 01-081-0322	24-8-2	PAOZZ
NIIN 01-199-4974	24-8	PAOGG
TBP	24-8-20	PAOZZ
1202 (58293)	24-8-8	PAOZZ
1213 (58293)	24-8-14	PAOZZ
1219 (58293)	24-8-10	PAOGG
1224 (58293)	24-8-21	PAOZZ
1225 (58293)	24-8-23	
1251 (58293)	24-8-9	PAOZZ
3000 (58293)	24-8-4	PAOZZ
3001 (58293)	24-8-3	PAOZZ

Part Number	Figure and Index Number	SM&R Code
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3010 (58293)	24-8-11	PAOZZ
3021 (58293)	24-8-6	PAOZZ
3022 (58293)	24-8-5	PAOZZ
3023 (58293)	24-8-7	PAOZZ
3031 (58293)	24-8-18	PAOZZ
3037 (58293)	24-8-17	PAOZZ
3041 (58293)	24-8-15	PAOZZ
3043 (58293)	24-8-13	PAOZZ
3063 (58293)	24-8-16	PAOZZ
3100 (58293)	24-8-12	PAOZZ
8581 (58293)	24-8-1	PAOGG
8582 (58293)	24-8-22	PAOGG

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